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<h2 style="margin: 0;">TRANSMITTAL FORM</h2> <p style="font-size: small; margin-top: 10px;">(to be used for all correspondence after initial filing)</p>	Application Number	10/588,679
	Filing Date	August 8, 2006
	First Named Inventor	Gavril W. Pasternak
	Art Unit	Unknown
	Examiner Name	Not Yet Assigned
Total Number of Pages in This Submission	Attorney Docket Number	62078NAT(51590)

ENCLOSURES (Check all that apply)		
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	EDWARDS ANGELL PALMER & DODGE LLP		
Signature			
Printed name	Amy M. Leahy		
Date	February 20, 2007	Reg. No.	47,739

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Dated: February 20, 2007	Signature: <u>Denise Kacinski</u> (Denise Kacinski)

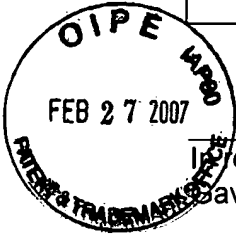
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Dated: February 20, 2007

Signature:

*Denise Kacinski*  
(Denise Kacinski)

Docket No.: 62078(51590)  
(PATENT)



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Initial Patent Application of:  
Dmitriy W. Pasternak et al.

Application No.: 10/588,679

Confirmation No.: Unknown

Filed: August 8, 2006

Art Unit: Unknown

For: IDENTIFICATION AND  
CHARACTERIZATION OF MULTIPLE  
SPLICE VARIANTS OF THE MU OPIOID  
RECEPTOR GENE

Examiner: Not Yet Assigned

**INFORMATION DISCLOSURE STATEMENT (IDS)**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

In accordance with 37 CFR 1.98(a)(2)(ii), Applicant has not submitted copies of U.S. patents and U.S. patent applications. Applicant submits herewith copies of foreign patents and non-patent literature in accordance with 37 CFR 1.98(a)(2).

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other

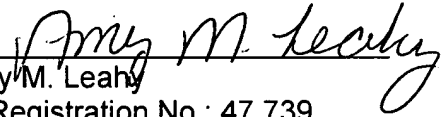
material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1105, under Order No. 62078(51590).

Dated: February 20, 2007

Respectfully submitted,

By   
Amy M. Leahy

Registration No.: 47,739

Marina Heusch

Registration No.: 47,647

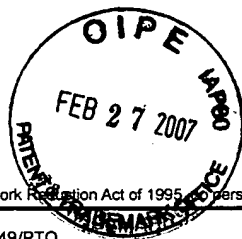
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			Application Number	10/588,679	
			Filing Date	August 8, 2006	
			First Named Inventor	Gavril W. Pasternak	
			Art Unit	N/A	
			Examiner Name	Not Yet Assigned	
Sheet	1	of	3	Attorney Docket Number	62078NAT(51590)

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> ( if known)			
	AA	US- 4,949,778	08/07/1990	LADNER et al.	
	AB	US- 6,103,492	08/15/2000	YU	
	AC	US-6,500,927	12/31/2002	PASTERNAK et al.	
	AD	US-7,087,714	08/08/2006	PASTERNAK et al.	

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

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NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author ( in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page( s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	CA	ROSSI et al. "Antisense mapping the MOR-1 opioid receptor: evidence for alternative splicing and a novel morphine-6 beta-glucuronide receptor." FEBS Lett. 369 (2-3): 192-196 (1995)	
	CB	KAUFMAN et al. "Characterization of the Murine $\mu$ Opioid Receptor Gene." The Journal of Biological Chemistry 270(26): 15877-15883 (1995)	
	CC	ABBADIE et al. "Neurons in the dorsal column white matter of the spinal cord: Complex neuropil in an unexpected location." Proc. Natl. Acad. Sci. USA 96: 260-265 (1999)	
	CD	BARE et al. "Expression of two variants of the human $\mu$ opioid receptor mRNA in SK-N-SH cells and human brain." FEBS Letters 354: 213-26 (1994)	
	CE	CHEN et al. "Molecular Cloning and Functional Expression of a $\mu$ -Opioid Receptor from Rat Brain." Molecular Pharmacology 44: 8-12 (1993)	
	CF	COLE et al. "The EBV-Hybridoma Technique and its Application to Human Lung Cancer." Monoclonal Antibodies and Cancer Therapy 77-96 (1985)	
	CG	COTE et al. "Generation of human monoclonal antibodies reactive with cellular antigens." Proc. Natl. Acad. Sci. USA 80: 2026-2030 (1983)	
	CH	DELFS et al. "Expression of Mu Opioid Receptor mRNA in Rat Brain: An In Situ Hybridization Study at the Single Cell Level." The Journal of Comparative Neurology 345: 46-68 (1994)	
	CI	ELLIOTT et al. "The NMDA receptor antagonists, LY274614 and MK-801, and the nitric oxide synthase inhibitor, NG-nitro-L-arginine, attenuate analgesic tolerance to the mu-opioid morphine but not to kappa opioids." Pain 56: 69-75 (1994)	
	CJ	EVANS et al. "Establishment in culture of pluripotential cells from mouse embryos." Nature 28 (1981)	
	CK	GIROS et al. "Chromosomal Localization of the Opioid Peptide and Receptor Genes in the Mouse." Life Sciences 56(18): 369-375 (1995)	
	CL	GUIRAMANDI et al. "Alternative Splicing of the Dopamine D2 Receptor Directs Specificity of	
Examiner Signature	Date Considered		

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>			<b>Complete if Known</b>		
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			First Named Inventor	Gavril W. Pasternak	
			Art Unit	N/A	
			Examiner Name	Not Yet Assigned	
Sheet	2	of	3	Attorney Docket Number	62078NAT(51590)

		Coupling to G-proteins." The Journal of Biological Chemistry 270(13): 7354-7358 (1995)	
CM	HUSE et al. "Generation of a Large Combinatorial Library of the Immunoglobulin Repertoire in Phage Lambda." Science 246: 1275-1281 (1989)		
CN	KOLESNIKOV et al. "1-Aminocyclopropane Carboxylic Acid (ACPC) Prevents Mu and Delta opioid Tolerance." Life Sciences 55(18): 1393-1398 (1994)		
CO	KOLESNIKOV et al. "Blockade of tolerance to morphine but not to $\kappa$ opioids by a nitric oxide synthase inhibitor." Proc. Natl. Acad. Sci. USA 90: 5162-5166 (1993)		
CP	LIANG et al. "Cloning and characterization of the promoter region of the mouse $\mu$ opioid receptor gene." Brain Research 679: 82-88 (1995)		
CQ	LOWRY et al. "Protein Measurement with the Folin Phenol Reagent." J. Biol. Chem 193: 265-275 (1951)		
CR	LUCAS et al. "New players in the 5-HT receptor field: genes and knockouts." TIPS 16: 246-252 (1995)		
CS	LUTZ et al. "Opioid Receptors and their Pharmacological Profiles." Journal of Receptor Research 12(3): 267-286 (1992)		
CT	MIN et al. "Genomic structure and analysis of promoter sequence of a mouse $\mu$ opioid receptor gene." Proc. Acad. Sci. USA 91: 9081-9085 (1994)		
CU	MORRISON et al. "Chimeric human antibody molecules: Mouse antigen-binding domains with human constant region domains." Proc. Natl. Acad. Sci. USA 81: 6851-6855 (1984)		
CV	NEUBERGER et al. "Recombinant antibodies possessing novel effector functions." Nature 312(13): 604-608 (1984)		
CW	OLSON et al. "Endogenous Opiates: 1988." Peptides 10: 1253-1280 (1989)		
CX	PAN et al. "Cloning, Expression and Classification of a Kappa3-Related Opioid Receptor Using Antisense Oligodeoxynucleotides." Regul. Pept. 54: 217-218 (1994)		
CY	PAN et al. "Dissociation of affinity and efficacy in KOR-3 chimeras." FEBS Letters 395: 207-210 (1996)		
CZ	PASTERNAK et al. "Pharmacological Mechanisms of Opioid Analgesics." Clinical Neuropharmacology 16(1):1-18 (1993)		
CA1	PASTERNAK et al. "Mapping of opioid receptors using antisense oligodeoxynucleotides: correlating their molecular biology and pharmacology." TIPS 16: 344-350 (1995)		
CB1	REISINE et al. "Molecular biology of opioid receptors." Trends Neurosci. 16: 506-510 (1996)		
CC1	REISINE et al. "Opioid Analgesics and Antagonists." In Goodman & Gilman's The Pharmacology Basis of Therapeutics 9 <sup>th</sup> Ed. McGraw-Hill: 521-555 (1996)		
CD1	ROBERTSON "Using Embryonic Stem Cells to Introduce Mutations into the Mouse Germ line." Biology of Reproduction 44: 238-245 (1991)		
CE1	ROSSI et al. "Antisense mapping of MOR-1 in Rats: Distinguishing between Morphine and Morphine-6 $\beta$ -glucuronide Antinociception <sup>1</sup> ." The Journal of Pharmacology and Experimental Therapeutics 28(1): 109-114 (1997)		
CF1	ROSSI et al. "Naloxone sensitive orphanin FQ-induced analgesia in mice." European Journal of Pharmacology 311: R7-R8 (1996)		
CG1	ROSSI et al. Antisense mapping the MOR-1 opioid receptor: evidence for alternative splicing and a novel morphine 6 $\beta$ -glucuronide receptor." FEBS Letters 369: 192-196 (1995)		
CH1	SIBINGA et al. "Opioid Peptides and Opioid Receptors in Cells of the Immune System." Ann Rev. Immunol. 6: 219-249 (1988)		
CI1	SIMON et al. "Opioid Receptors and Endogenous Opioid Peptides." Medicinal Research Reviews 11(4) 357-374 (1991)		
CJ1	STANDIFER et al. "G Proteins and Opioid Receptor-Mediated Signalling." Cell Signal 9: 237-248 (1997)		

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Sheet	3	of	3	Attorney Docket Number	62078NAT(51590)

	CK1	STANDIFER et al. "Differential Blockade of Opioid Analgesia by Antisense Oligodeoxynucleotides Directed against Carious G Protein $\alpha$ Subunits." Molecular Pharmacology 50: 293-298 (1996)	
	CL1	TAKEDA et al. "Construction of chimaeric processed immunoglobulin genes containing mouse variable and human constant region sequences." Nature 314: 452-454 (1985)	
	CM1	TRUJILLO et al. "Inhibition of Morphine Tolerance and Dependence by the NMDA Receptor Antagonist MK-801." Science 251: 85-87 (1991)	
	CN1	VAN DEN ENGH et al. "Estimating Genomic Distance from DNA Sequence Location in Cell Nuclei by a Random Walk Model." Science 257: 1410-1412 (1992)	
	CO1	VANETTI et al. "Cloning and Expression of a novel mouse somatostatin receptor (SSTR2B)." FEBS Letters 311(3): 290-294 (1992)	
	CP1	WANG et al. " $\mu$ opiate receptor: cDNA cloning expression." Neurobiology 90: 10230-10234 (1993)	
	CQ1	WOLOZIN et al. "Classification of multiple morphine and enkephalin binding sites in the central nervous system." Proc. Natl. Acad. Sci. USA 78: 6181-6185 (1981)	
	CR1	YASUDA et al. "Cloning and functional comparison of $\kappa$ and $\delta$ opioid receptors from mouse brain." Proc. Natl. Acad. Sci USA 90: 6736-6740 (1993)	
	CS1	ZIMPRICH et al. "Cloning and expression of an isoform of the rat $\mu$ opioid receptor (rMOR1B) which differs in agonist induced desensitization from rMOR1." FEBS Letters 359: 142-146 (1995)	
	CT1	DU et al. "Identification of a novel splice variant of the mouse mu opioid receptor." Society for Neuroscience 695.5 (1996)	
	CU1	DU et al. "A splice variant of the mu opioid receptor is present in human SHSY-5Y cells." Society for Neuroscience 479.3 (1997)	
	CV1	LEVENTHAL et al. "Antisense Mapping of the MOR-1 Opioid Receptor Clone: Modulation of Hyperphagia Induced by DAMGO." The Journal of Pharmacology and Experimental Therapeutics. 282(3): 1402-1407 (1997)	
	CW1	LEVENTHAL et al. "Antisense oligodeoxynucleotides against the MOR-1 clone alter weight and ingestive responses in rats." Brain Research 719: 78-84 (1996)	

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Application No. (if known): 10/588,679

Attorney Docket No.: 62078NAT(51590)

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